IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

RAVGEN, INC., **Plaintiff,** ***v.*** **LABORATORY CORPORATION OF AMERICA HOLDINGS,** **Defendant.**	**6:20-CV-00969-ADA**

MEMORANDUM OPINION AND ORDER GRANTING-IN-PART PLAINTIFF'S MOTION FOR ENHANCED DAMAGES (ECF NO. 232) AND AWARDING ENHANCED DAMAGES

Came on for consideration this date is Plaintiff Ravgen, Inc.'s ("Ravgen") post-trial Motion for Enhanced Damages Pursuant to 35 U.S.C. § 284 (ECF No. 232) seeking treble damages. ECF No. 232. Laboratory Corporation of America Holdings ("LabCorp" or "Defendant") filed an opposition on October 19, 2022, ECF No. 242, to which Ravgen replied on October 26, 2022, ECF No. 249. The Court heard the parties' arguments on December 14, 2022. ECF Nos. 293–94. Consistent with the Court's oral rulings and for the reasons set forth below, Plaintiff's Motion is **GRANTED-IN-PART.** For the reasons explained below, the Court exercises its discretion under § 284 to award Ravgen enhanced damages in the amount of $100,000,000.

I. BACKGROUND

After a five-day jury trial, the jury reached a verdict finding that Labcorp willfully infringed claim 132 of U.S. Patent No. 7,332,277 (the "'277 Patent") and awarded Ravgen $272,497,400 in reasonable royalty damages. ECF No. 222. Dr. Dhallan's discovery in the early 2000s, claimed in the '277 Patent, was pivotal to developing accurate non-invasive prenatal tests ("NIPTs") that sequence cell-free fetal DNA taken from a sample of the mother's blood. *See, e.g.*, Tr. 280:18–

282:7, 310:11–311:22, 314:2–316:15. Dr. Dhallan appreciated the importance of his invention. He sought to bring Ravgen's technology to patients by partnering with larger diagnostics companies that had nationwide distribution networks and economies of scale. Tr. 127:23–128:12, 128:19–129:3, 250:6–251:24. Labcorp was the first major company he spoke with about his technology. Tr. 128:19–129:7. For years, Dr. Dhallan met with executives and scientists at Labcorp and the companies it acquired. They soon became the first in the U.S. to launch commercial NIPTs using cell-free fetal DNA in maternal blood, collected in a formaldehyde-releasing Streck Cell-Free DNA Blood Collection Tube ("Streck tube")—knowingly, willfully, and intentionally taking his invention. *See* Tr. 765:7–11, 789:3–14, 790:4–6.

Labcorp was well aware of Dr. Dhallan's invention and the '277 Patent before launching its infringing MateriT21 PLUS, MateriT Genome, and informaSeq tests. It is undisputed that Labcorp knew of the '277 Patent by at least December 2010, before Labcorp sold any NIPTs. Tr. 517:2–5, 515:22–516:10. As one Labcorp witness admitted: "I knew about the Ravgen patents because Dr. Dhallan told me about them." Tr. 980:4–15.

By the fall of 2011, Labcorp had started planning its entrance into the NIPT market. *See* PTX-1231.0002. Knowing that "Ravgen has patent claims relevant to NIPD testing," Labcorp believed that it was a "good time to evaluate Ravgen's IP in the context" of Labcorp's "NIPD plans." *See id.* Employees who had looked at Ravgen's patents were "surprised by the breadth of the claims." PTX-1231.0001; Tr. 927:2–9. So Labcorp made sure to consult its attorney. Tr. 927:10–20. They went to an intellectual property attorney specifically to analyze Ravgen's patents. PTX-1271. On December 19, 2011, 23 minutes after getting off the phone with Labcorp's "IP attorney on you [sic] patents," Labcorp re-engaged Ravgen, "hop[ing] that we find a way to collaborate." PTX-1271. Three months later, Labcorp's CEO—the highest ranking officer of a

70,000-employee company—approved travel plans to meet with "Ravgen (IP holder in NIPD space)." Tr. 1202:14–1203:21; PTX-1229. In March 2014, Labcorp executives were still stringing Dr. Dhallan along, telling him they hoped to work together. *See* Tr. 146:22–147:5, 987:13–18. Ravgen never granted a license, but Labcorp nevertheless launched the infringing informaSeq test in August 2014. Tr. 516:3–10.

In parallel, in 2011, Ravgen had been having promising discussions with Harry Hixson, the Chairman and CEO of Sequenom, another company Labcorp would later acquire. PTX-1294; Tr. 802:22–803:8. Sequenom launched its MaterniT21 test in October 2011 with EDTA tubes but was losing money on that test. Tr. 553:15–555:1. After internally testing and validating Dr. Dhallan's approach of using formaldehyde and telling him that it "worked great" (Tr. 155:5–18), Sequenom realized how to apply Dr. Dhallan's formaldehyde invention commercially. Accordingly, Sequenom independently reached the same conclusion that Labcorp did: that it should take a license to Ravgen's patent. One week after Sequenom's March 12, 2012 development report for switching to Streck tubes (PTX-0719), on March 20, 2012, Sequenom's CEO asked Ravgen for an exclusive license to the '277 Patent and offered to pay a royalty. PTX-1301; Tr. 151:17–152:22. Sequenom's CEO continued to try to license the '277 Patent over the next few weeks. PTX-0234.

But Dr. Dhallan was in the hospital for a life-threatening illness in May 2012, so he could not negotiate on the timescale that Sequenom wanted. Tr. 154:6–155:1. Nonetheless, in an apparently calculated decision to be the first to market and worry about the consequences later, Sequenom launched the infringing MaterniT PLUS test using Streck tubes in August 2012 (PTX-0175.0008–0009), knowing that it had no license to the '277 Patent. Those tests became so

commercially successful that Labcorp acquired Sequenom and the MaterniT products in 2016, despite knowing of the infringement. *See* Tr. 514:15–24, 940:21–941:9.

Indeed, when Ravgen was finally forced to sue to enforce its patents, the reaction at Labcorp was: "I was wondering when this would happen." PTX-1232.0001. In fact, Labcorp was expecting Ravgen to sue sooner. See PTX-1233.0001 ("I wondered what he waited for….").

Well after this lawsuit began, Labcorp continued to make hundreds of millions of dollars by selling the infringing tests while doing nothing to avoid infringement. By 2021, Labcorp was selling more than 500,000 infringing tests every year. Tr. 555:4–556:8. Sales kept rising, so Labcorp kept selling despite knowing that it infringes. Labcorp will sell more than 600,000 units and $250 million of the infringing tests by the end of 2022. Tr. 629:7–11. Labcorp has sold over $1.5 billion of those tests to date, Tr. 1241:6–9. The infringing tests are highly profitable, with gross margins exceeding 60%, Tr. 650:20–651:5, 1241:10–15.

II. LEGAL STANDARD

Section 284 of Title 35 provides that, in a patent infringement case, "the court may increase the damages up to three times the amount found or assessed." 35 U.S.C. § 284. As the Supreme Court has remarked in the seminal *Halo* decision, "That language contains no explicit limit or condition, and we have emphasized that the word 'may' clearly connotes discretion." *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 579 U.S. 93, 103 (2016) (cleaned up). That discretion is not boundless and instead must be exercised "in light of considerations underlying the grant of that discretion." *Id.* (cleaned up). In interpreting those considerations, the Supreme Court appealed to the judiciary's 180-year history of awarding enhanced damages, in which courts have "generally reserved" enhancement for "egregious cases of culpable behavior." *Id*. at 104. Egregious cases typically involve, in the Court's opinion, conduct that is "willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a

pirate." *Id.* at 103–04; *id.* at 107 ("[S]uch punishment should generally be reserved for egregious cases typified by willful misconduct.").

"Willfulness largely turns on intent, which is an issue reserved to the jury." *See WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1341 (Fed. Cir. 2016). Once the jury finds that the defendant's infringement was willful, the Court must consider whether that alone justifies enhancement. According to the Federal Circuit, "Halo emphasized that subjective willfulness alone . . . can support an award of enhanced damages." *WesternGeco L.L.C. v. ION Geophysical Corp.*, 837 F.3d 1358, 1362 (Fed. Cir. 2016), *rev'd on other grounds*, 138 S. Ct. 2129, 201 L. Ed. 2d 584 (2018); *Halo*, 579 U.S. at 105 ("The subjective willfulness of a patent infringer, intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless."). Yet courts are vested with discretion to forbear enhancement under § 284 even in egregious cases, if that is what "the particular circumstances of" the case demand. *Id.* at 106; *cf. id.* at 111 (Breyer, J., dissenting) ("[W]hile the Court explains that 'intentional or knowing' infringement 'may' warrant a punitive sanction, the word it uses is may, not must . . . . It is 'circumstanc[e]' that transforms simple knowledge into such egregious behavior, and that makes all the difference."). The Federal Circuit has endorsed consideration of the *Read* factors to "assist the trial court in evaluating the degree of the infringer's culpability and in determining whether to exercise its discretion to award enhanced damages at all, and if so, by how much the damages should be increased." *WCM Indus., Inc. v. IPS Corp.*, 721 F. App'x 959, 972 (Fed. Cir. 2018). As to burdens, the "party seeking enhanced damages under § 284 bears the burden of proof by a preponderance of the evidence." *WBIP*, 829 F.3d at 1339

III. ANALYSIS

The nine *Read* factors are: (1) whether the infringer deliberately copied the ideas of another; (2) whether the infringer investigated the scope of the patent and formed a good-faith

belief that it was invalid or that it was not infringed; (3) the infringer's behavior as a party to the litigation; (4) the defendant's size and financial condition; (5) the closeness of the case; (6) the duration of the defendant's misconduct; (7) remedial action by the defendant; (8) the defendant's motivation for harm; and (9) whether the defendant attempted to conceal its misconduct. 970 F.2d at 827. "An award need not rest on any particular factor, and not all relevant factors need to weigh in favor of an enhanced award." *Imperium IP Holdings (Cayman), Ltd. v. Samsung Elecs. Co., Ltd.*, 203 F. Supp. 3d 755, 763 (E.D. Tex. 2016) (citing *SRI Int'l, Inc. v. Advanced Tech. Labs., Inc.*, 127 F.3d 1462, 1469 (Fed. Cir. 1997)).

Although the Court finds that this is a strong case for egregiousness, the Court finds that Ravgen's failure to prove some of the *Read* factors prevents an award of full treble damages. First, Ravgen concedes that the deliberate copying factor is neutral. Ravgen also fails to establish that Labcorp had a weak case or that Labcorp's litigation behavior was improper. In its motion, Ravgen does not put forward sufficient evidence to show that Labcorp intended harm. Yet Ravgen has presented a strong case for enhancement because Labcorp lacked a good-faith belief, Labcorp is a large company, the infringement was for a long time, Labcorp conducted no remedial measures, and there is some evidence of possible concealment by Labcorp. Thus, the Court finds that it will exercise its discretion and award Ravgen enhanced damages in the amount of $100,000,000.

A. *Read* Factor 1: Deliberate Copying

The first *Read* factor concerns whether Labcorp deliberately copied Ravgen. The Court is not persuaded that Plaintiffs have shown any copying. Ravgen concedes that this factor is neutral. Ravgen contends that this factor is neutral because although there is no direct evidence of copying, it argues there is circumstantial evidence of copying from Labcorp's knowledge of Dr. Dhallan's publications and the R&D employees. By contrast, Labcorp contends that this weighs against enhancement. Labcorp argues that there is direct evidence that Labcorp independently developed

its NIPT. Ravgen replies that this factor is neutral because Labcorp did derive its approach from Dr. Dhallan.

The Court finds that this factor is neutral. Although there is no evidence of direct copying, there is circumstantial evidence that shows that Labcorp derived its approach from Dr. Dhallan.

B. *Read* Factor 2: Good-faith belief

The second *Read* factor asks whether Labcorp, when they learned of the relevant patents, investigated their scope and formed a good-faith belief that the patents were invalid or not infringed. Ravgen argues that Labcorp lacks a good-faith belief that Ravgen's patents were invalid or not infringed. Ravgen principally relies on the fact that one week after developing the infringing Streck tube-based MaterniT21 PLUS, Sequenom's CEO asked for an exclusive license to Ravgen's patents, including the '277 Patent.

Labcorp contends that it performed a detailed evaluation of Dr. Dhallan's patents and tested his methods but found they did not work. Labcorp argues that Sequenom was interested in working with Dr. Dhallan, but that was to develop a different test with using "alternative method." Labcorp further asserts that Ravgen did not accuse Labcorp of infringement until it filed this lawsuit even though Sequenom told Dr. Dhallan in 2012 it would use Streck tubes. Labcorp finally contends that it maintained non-infringement and invalidity defenses and filed an IPR petition.

The Court finds that this factor weighs in favor of enhancement. Labcorp fails to persuade the Court that it had a good-faith belief of noninfringement or invalidity at the time of Labcorp's misconduct. Although Labcorp argues that Sequenom went with an alternative method because of PTX-0234, that evidence relates to other claims of Ravgen's patents not at issue in this case.

C. *Read* Factor 5: Labcorp's Weak Case

The fifth *Read* factor concerns how "close" the case was. Ravgen argues that the jury found for Ravgen on all issues here and awarded the exact amount presented by Ravgen's damages

expert. *See Jiaxing Super Lighting Elec. Appliance Co. v. CH Lighting Tech. Co.*, No. 6:20-CV-00018-ADA, 2022 WL 3371630, at *6 (W.D. Tex. Aug. 16, 2022). Losing on all issues at summary judgment, as Labcorp did (ECF No. 199), also indicates that the case was not close. *See SRI Int'l, Inc. v. Cisco Sys.*, Inc., 254 F. Supp. 3d 680, 723–24 (D. Del. 2017), *aff'd in relevant part*, 14 F.4th 1323, 1330–31 (Fed. Cir. 2021). Labcorp also withdrew its invalidity defense midway through trial.

Labcorp responds that the closeness of the case weighs against enhancement. Labcorp also argues that Ravgen did not attempt to dispose of Labcorp's defenses on summary judgment. The Court finds that Ravgen also ignores Labcorp's other non-infringement defense that the patent requires a targeted sequencing method: "determining the sequence of a locus of interest." The Court therefore finds that this factor is neutral.

D. *Read* Factor 3: Labcorp's Litigation Behavior

The third *Read* factor concerns the infringers' behavior as a party to the litigation. Plaintiff contends the Defendant's alleged behavior before and during trial, below, was improper.

- Belated transfer motion: Motion to transfer filed 13 months after the Complaint, months after claim construction order had issued, followed by a futile mandamus petition to the Federal Circuit
- 26(c)(2)(C): late produced disclosure of non-infringing alternatives, which the Court excluded
- Scheduling difficulties: Making all of its senior leaders and witnesses purportedly unavailable for trial
- Irrelevant and prejudicial evidence: compared Labcorp's accused tests to Ravgen's commercial embodiment, a forbidden way to show noninfringement, by eliciting testimony to contrast "squirting" formaldehyde in Ravgen's commercial tests with Labcorp's tests.
- Of the asserted patent with the alleged prior invention: After dropping Labcorp's invalidity defense, it elicited testimony to compare the date of the '277 Patent with the alleged prior invention in the 1998 Streck patent

Labcorp responds that Ravgen did not win every motion or discovery dispute it brought before the Court. The Court agrees with Labcorp and finds that Ravgen has not presented sufficient

evidence of any litigation misconduct by Labcorp. Accordingly, the Court finds that this factor does not weigh in favor of enhancement but instead weighs against enhancement.

E. *Read* Factor 4: Labcorp's Size and Financial Condition

The fourth *Read* factor asks the Court to evaluate Defendants' size and financial condition. Trebling would result in an award of $817 million, less than the $900 million in profit Defendant made by infringing. The requested 3X enhancement would not exceed Labcorp's profit from infringing tests, let alone drive Labcorp out of business given the thousands of other tests that it sells. Labcorp states that Ravgen and Labcorp are not competitors. And Labcorp argues that Ravgen's lack of success was due to its poor choices and poor technology. Yet the Court finds that Labcorp's size and financial condition weighs in favor of enhancement of damages.

F. *Read* Factors 6 and 7: Duration of Misconduct and any Remedial Action

The sixth *Read* factor asks the Court to consider the duration of Defendants' misconduct, and the seventh *Read* factor concerns whether Defendants took remedial action. The Court will address these two factors together and finds that they both weigh in favor of enhancement. Ravgen relies on the fact that the infringing accused products were first launched in 2012 and have been infringing for over a decade. Ravgen contends that the record shows no remedial action by Labcorp. Labcorp responds that the duration of its conduct is neutral because while Labcorp's NIPTs were sold starting in 2012, Ravgen did not accuse Labcorp of infringement until it sued Labcorp in 2020. The Court finds that this factor weighs strongly in favor of granting enhancement because of the length of infringement and lack of any remedial action by Labcorp.

G. *Read* Factor 8: Labcorp's Motivation for Harm

The eighth *Read* factor asks whether the Defendants were motivated to harm Plaintiff. Ravgen relies on evidence that shows that senior executives at Labcorp disparaging the main inventor and founder of Ravgen behind his back: calling him a "Top notch ☺" "nutcase" with a

"swelled head." Labcorp responds that these emails are not evidence of Labcorp's motivation for ***competitive harm***. Although these remarks by Senior Executives at Labcorp do no favors to Labcorp, the Court agrees with Labcorp and finds that this is not sufficient evidence of Labcorp's motivation for competitive harm. Accordingly, this factor is neutral as to awarding enhanced damages.

H. *Read* Factor 9: Labcorp's Concealment of Misconduct:

The final *Read* factor concerns whether Defendants attempted to conceal their misconduct. Ravgen argues that the moment that Labcorp heard about Ravgen enforcing its patents against other NIPT companies that use the same Streck tubes Labcorp uses, Labcorp began its cover-up. Even though Labcorp did not change its MaterniT products to avoid infringement, it altered the documentation to remove Labcorp's admission that "[t]he preservative in Streck BCT stabilizes whole blood cells and delays the release of maternal genomic DNA." *Compare* PTX0176.0034 (Version 5), *with* PTX-0176.0048 (Version 6). Version 6 became available on June 9, 2020, just one week after Labcorp employees learned of Ravgen's case against Natera on June 2, 2020. And Labcorp made this change in Section 6.2.1 silently, omitting any record of that change in the "Document Revision History."

Labcorp responds that the evidence at trial does not support Ravgen's argument that this was some kind of cover up. Ravgen mischaracterizes the evidence to suggest the Version 6 document became available on June 2, 2020, when the evidence shows the Version 6 test was available on that date. ECF No. 232-10, PTX0175 at 9. The only testimony at trial on this change does not support Ravgen's argument that this was some kind of cover up. ECF No. 242-1 at 811:14–812:1, 817:8–11. Ravgen also ignores what the "Document Revision History" actually says, in arguing incorrectly that the Labcorp omitted a record of the change. The "Document Revision History" says, "All" sections and paragraphs are affected by the change of "Updat[ing]

AV5 to AV6 changes," referring to updating the document from Version 5 of the test to Version 6.

The Court finds that Ravgen has submitted evidence of possible concealment by Labcorp. But because this fact is not completely clear from the record, the Court finds that this factor weighs only slightly in favor of enhancement and is not alone dispositive.

IV. CONCLUSION

The Court finds that this case is egregious and therefore enhancement is warranted for the above stated reasons. Ravgen argues that damages should be trebled because it contends that 8 out of the nine *Read* factors favor enhancement in this case. Labcorp contends that six of the nine *Read* factors weigh against enhancement, while three factors are neutral. The Court finds, however, that because five of the nine *Read* factors weigh in favor of granting enhancement of damages, enhancement of damages should be **GRANTED**. But because Ravgen failed to show deliberate copying, litigation misconduct, or that Labcorp had a weak case, the Court exercises its discretion and enhances damages in the additional amount of $100,000,000.

For the foregoing reasons, the Court **GRANTS-IN-PART** Ravgen's Motion for enhanced damages. The Court will exercise its discretion under § 284 to enhance the jury's damages award. It is therefore **ORDERED** that Ravgen is awarded enhanced damages in the amount of $100,000,000.

SIGNED this 12th day of May, 2023.

ALAN D ALBRIGHT
UNITED STATES DISTRICT JUDGE